eMachines®

Computer Reference Guide

Contents

Chapter 1

About This Reference

About this guide

This guide includes information and maintenance instructions that are specific to your model of eMachines computer. Some illustrations in this guide may look different than your computer because hardware options and port locations may vary. For all other computer information, see your online *User Guide*.

For more information

For more information about your computer, visit the eMachines *Support* page at www.emachines.com or the Web address shown on your computer's label. The *Support* page also has links to additional eMachines documentation and detailed specifications.

Accessing the online *User Guide*

In addition to this guide, your *User Guide* has been included on your hard drive. Your *User Guide* is an in-depth, easy-to-read manual that includes information on the following topics:

- Help and technical support
- Using and customizing Windows and other software
- Controlling audio and video settings
- Using the Internet
- Protecting your files
- Playing and recording media
- Networking

▶ **To access your *User Guide*:**

- Click (**Start**), **All Programs**, then click **eMachines Documentation**.

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eMachines contact information

See your setup poster for Customer Care contact information. The label on the top of your computer contains information that identifies your computer model and serial number. Customer Care will need this information if you call for assistance.

Microsoft Certificate of Authenticity

The Microsoft Certificate of Authenticity label found on the back or side of your computer includes the product key code for your operating system. If you ever reinstall Windows from the installation DVD, you will need to enter these numbers to activate Windows.

Chapter 2

Checking Out Your Computer

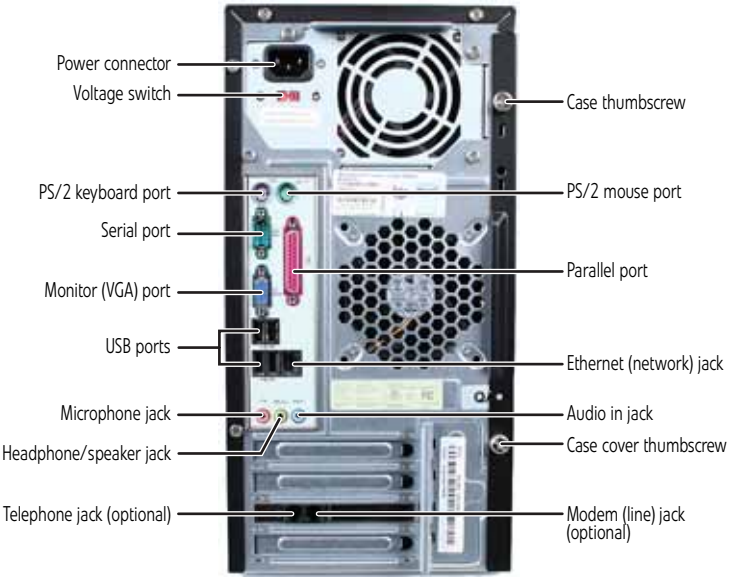
Front


DVD/CD drive
DVD/CD drive (optional)
Memory card reader (optional)
Power button/ power indicator
USB ports
Microphone jack
Headphone jack
emachines

Component	Icon	Description
Optical disc drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable discs (depending on drive type). This drive may be a CD, recordable CD, DVD, recordable DVD, Blu-ray, or HD DVD drive. For more information about your drive, see "Identifying optical drive types" on page 23.
Memory card reader		Insert a memory card from a digital camera, MP3 player, PDA, cellular telephone, or other device into the memory card reader. For more information, see "Using a memory card" on page 27.
Power button/power indicator		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. The power indicator lights when the computer is turned on.
USB ports		Plug USB (Universal Serial Bus) devices (such as a USB external drive, printer, scanner, camera, keyboard, or mouse) into these ports.
Microphone jack		Plug a microphone into this jack. This jack is color-coded pink.
Headphone jack		Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded green.

Back

Important
Your computer's hardware options and port locations may vary from this illustration.



Component	Icon	Description
Power connector		Plug the power cord into this connector.
Voltage switch		The switch is preset at the factory. Make sure that this is set to the correct voltage for your area. For more information, see "Checking the voltage selection" on page 15
PS/2 keyboard port		Plug a PS/2 keyboard into this port.
Serial port		Plug a serial device (such as a digital camera) into this port.
Monitor (VGA) port		Plug a VGA (blue connector) monitor cable into this port.
USB ports		Plug USB (Universal Serial Bus) devices (such as a USB printer, scanner, camera, keyboard, or mouse) into these ports.

Component	Icon	Description
Microphone jack (pink plug)		Plug a microphone into this jack.
Headphone/ speaker jack (green plug)		Plug headphones or speakers into this jack.
Telephone jack (optional)		Plug the cord from your telephone into this jack.
Case thumbscrew		Remove this screw before opening the case.
PS/2 mouse port		Plug a PS/2 mouse into this port.
Parallel port		Plug a parallel device (such as a printer) into this port.
Ethernet (network) jack		Plug an Ethernet network cable or a device (such as a DSL or cable modem for a broadband Internet connection) into this jack. For more information, see "Learning about the Internet" in the online *User Guide* and "Connecting to a broadband modem or network" on page 15.
Audio input (Line in) jack (blue plug)		Plug an external audio input source (such as a stereo) into this jack so you can record sound on your computer.
Modem jack (optional)		Plug a modem cable into this jack. For more information, see "Connecting a dial-up modem" on page 16.

Chapter 3

Setting Up and Getting Started

- Working safely and comfortably
- Preparing power connections
- Connecting to a broadband modem or network
- Connecting a dial-up modem
- Starting your computer
- Turning off your computer
- Restarting (rebooting) your computer
- Using the keyboard
- Using the mouse
- Using optical drives
- Using the memory card reader
- Adjusting the volume
- Configuring the audio jacks
- Installing a printer, scanner, or other device

Working safely and comfortably

Before using your computer, follow these general guidelines for setting up a safe and comfortable work area and avoiding discomfort and strain:

- Keep hands and arms parallel to the floor.
- Adjust the screen so it is perpendicular to your line of sight, and the top of the screen is no higher than eye level.
- Place your feet flat on the floor or on a footrest.
- Keep ventilation openings clear of obstructions.

Reducing eye strain

Sunlight or bright indoor lighting should not reflect on the monitor screen or shine directly into your eyes.

- Position the computer desk and screen so you can avoid glare on your screen and light shining directly into your eyes. Reduce glare by installing shades or curtains on windows, and by installing a glare screen filter.
- Use soft, indirect lighting in your work area. Do not use your computer in a dark room.
- Set paper holders at the same height and distance as the monitor.
- Avoid focusing your eyes on your computer screen for long periods of time. Every 10 or 15 minutes, look around the room, and try to focus on distant objects.

Setting up your computer desk and chair

When you are setting up your computer desk and chair, make sure that the desk is the appropriate height and the chair helps you maintain good posture.

- Select a flat surface for your computer desk.
- Adjust the height of the computer desk so your hands and arms are positioned parallel to the floor when you use the keyboard and touchpad. If the desk is not adjustable or is too tall, consider using an adjustable chair to control your arm's height above the keyboard.
- Use an adjustable chair that is comfortable, distributes your weight evenly, and keeps your body relaxed.
- Position your chair so the keyboard is at or slightly below the level of your elbow. This position lets your shoulders relax while you type.
- Adjust the chair height, adjust the forward tilt of the seat, or use a footrest to distribute your weight evenly on the chair and relieve pressure on the back of your thighs.
- Adjust the back of the chair so it supports the lower curve of your spine. You can use a pillow or cushion to provide extra back support.

Sitting at your computer

- Avoid bending, arching, or angling your wrists. Make sure that they are in a relaxed position when you type.
- Do not slouch forward or lean far back. Sit with your back straight so your knees, hips, and elbows form right angles when you work.
- Take breaks to stand and stretch your legs.
- Avoid twisting your torso or neck.

Avoiding discomfort and injury from repetitive strain

- Vary your activities to avoid excessive repetition.
- Take breaks to change your position, stretch your muscles, and relieve your eyes.
- Find ways to break up the work day, and schedule a variety of tasks.

Preparing power connections

Protecting from power source problems

Warning
High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable TV jack. During an electrical storm, unplug both the surge protector and the modem.

During a power surge, the voltage level of electricity coming into your computer can increase to far above normal levels and cause data loss or system damage. Protect your computer and peripheral devices by connecting them to a *surge protector*, which absorbs voltage surges and prevents them from reaching your computer.

An *uninterruptible power supply* (UPS) supplies battery power to your computer during a power failure. Although you cannot run your computer for an extended period of time with a UPS, a UPS lets you run your computer long enough to save your work and shut down your computer normally.

Checking the voltage selection

Caution

If you set the voltage selection switch incorrectly, your system will be damaged. Make sure this switch is set correctly for your location before turning on your computer. In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.

The *power supply*, a component built into your computer, provides power to the system board, add-in cards, and peripheral devices. The power supply's voltage selection for your location is typically set at the factory, but you can change it to match the electrical service available in your usage area (such as while in another country). Use the power selection switch on the back of your computer to set the voltage to 115V or 230V.

▶ **To set the voltage selection switch:**

1. Disconnect your computer's power cable.
2. Use a tool such as an opened paper clip to slide the voltage selection switch to the correct voltage position. The switch is located on the back of your computer, near the power cable connector.

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Connecting to a broadband modem or network

Important

Your computer may be equipped with a built-in Ethernet (network) jack. For information about setting up a wired or wireless Ethernet network, see your online *User Guide*.

You can connect your computer to a cable or DSL modem or to a wired Ethernet network.

▶ **To connect to a broadband modem or to an Ethernet network:**

1. Insert one end of the network cable into the network jack on the back of your computer.
2. Insert the other end of the network cable into a cable modem, DSL modem, or network jack.

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Connecting a dial-up modem

Warning
To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

Your computer may have a 56K modem that you can use with a standard telephone line to connect to the Internet or fax documents.

▶ **To connect the modem:**

1. Insert one end of the modem cable into the modem jack on the modem at the back of your computer.
2. Insert the other end of the modem cable into a telephone wall jack. (The modem will not work with digital or PBX telephone lines.)
3. If you want, you can connect a telephone to the PHONE jack on the modem at the back of your computer.

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Starting your computer

▶ **To start your computer:**

1. Connect the power, network, mouse, and keyboard cables to your computer according to the setup poster.
2. Press the power button on the front of your computer. If your computer does not turn on, check the power cord connections.

Important
Your computer has a built-in, variable-speed fan. In addition, your computer uses a powerful processor which produces heat and has its own cooling fan. Both the system fan and processor fan can run at different speeds at times to ensure correct system cooling. You may notice an increase in the fan noise when the fan is running at high speed and a decrease in the fan noise when it switches to normal speed.

3. If you are starting your computer for the first time, follow the on-screen instructions to select the language and time zone and to create your first user account.
4. Attach and turn on any USB or audio peripheral devices, such as printers, scanners, and speakers. If you need to attach a peripheral device to the parallel or serial ports, turn off your computer first. See the documentation that came with each device for its setup instructions.

5 To open your computer's Start menu, click (**Start**). From that menu, you can run programs and search for files. For more information on using your computer's menus, see "Using Windows" and "Customizing Windows" in your online *User Guide*.

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Waking up your computer

Tip

For more information about changing the power button mode, see the "Customizing" chapter in your online *User Guide*.

When you have not used your computer for several minutes, it may enter a power-saving mode called *Sleep*. While in Sleep mode, the power indicator on the power button flashes.

If your computer is in Sleep mode, move the mouse, press a key on the keyboard, or press the power button to "wake" it up.

Turning off your computer

Warning

When you turn off your computer, certain components in the power supply and system board remain energized. In order to remove all electrical power from your computer, unplug the power cord and modem cable from the wall outlets. We recommend disconnecting the power cord and modem cable when your computer will not be used for long periods.

Important

If for some reason you cannot use the Shut Down option in Windows to turn off your computer, press and hold the power button for about five seconds, then release it.

Putting your computer into Sleep mode is the easiest way to power down your computer. Although it does not turn your computer completely off, it does turn off or slow down most system operations to save power. It also saves your desktop layout so the next time you restore power, the programs are laid out just as you left them. Waking your computer from a Sleep state is much faster than turning on your computer after it has been turned completely off.

To put your computer to sleep:

1. Click (**Start**), then click (power). The computer saves your session and partially shuts down to save power.
2. To "wake" your computer, press a key on the keyboard, move the mouse, or press the power button.

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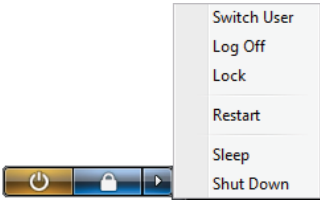
To turn off your computer:

1. Click (**Start**), click the arrow next to the lock icon, then click **Shut Down**. The computer turns off.



2. To completely disconnect all power (such as for servicing internal components), also disconnect the power cord.

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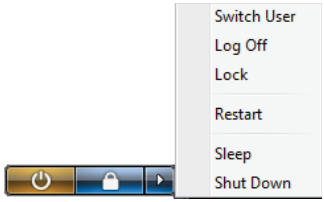
Restarting (rebooting) your computer

If your computer does not respond to keyboard or mouse input, you may need to restart (reboot) your computer.

▶ **To restart your computer:**

1. Click (**Start**), click the arrow next to the lock icon, then click **Restart**. Your computer turns off, then turns on again.



2. If your computer does not turn off, press and hold the power button until the computer turns off (about five seconds), then press it again to turn the computer back on.

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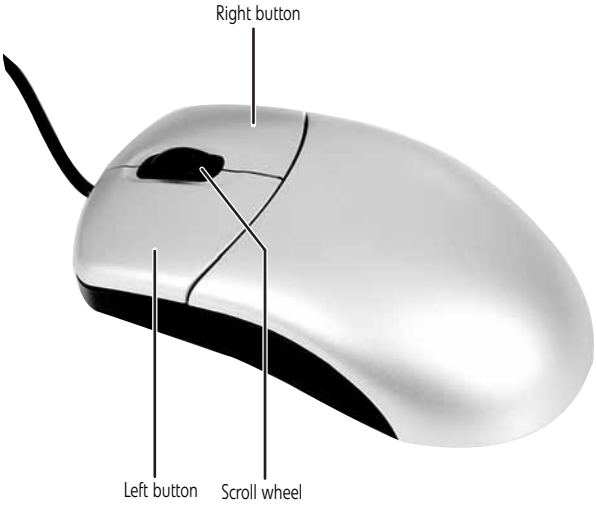
Using the keyboard

The keyboard has several different types of keys and buttons. Your keyboard also has status indicators that show which keyboard feature is active.

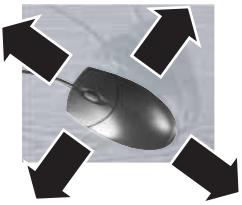
Feature	Description
Function keys	Press these keys to start program actions. Each program uses different function keys for different purposes. See the program documentation to find out more about the function key actions.
Audio playback buttons	Press these buttons to play your audio files and adjust the volume.
Indicators	These turn on if your NUM LOCK, CAPS LOCK, or SCROLL LOCK key is activated. Press the corresponding key to activate.
Windows keys	Press one of these keys to open the Windows **Start** menu. These keys can also be used in combination with other keys to open utilities like F (Find/Search), R (Run), and E (Computer).
Application key	Press this key to access shortcut menus and help assistants in Windows.
Navigation keys	Press these keys to move the cursor to the beginning of a line, to the end of a line, up the page, down the page, to the beginning of a document, or to the end of a document.
Numeric keypad	Press these keys to type numbers when the numeric keypad (NUM LOCK) is turned on.

Using the mouse

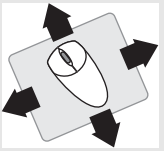


The *mouse* is a device that controls the pointer movement on the computer display. This illustration shows the standard mouse.

As you move the mouse, the *pointer* (arrow) on the display moves in the same direction.



You can use the *left* and *right buttons* on the mouse to select objects on the display. You can use the *scroll wheel* on the mouse to move through a document. This feature is not available in all programs.

To...	Do this...	
Move the pointer on the computer display		Move the mouse around. If you reach the edge of your mouse pad and need to move the mouse farther, lift the mouse and place it in the middle of the mouse pad, then continue moving the mouse.
Select an object on the computer display		Position the pointer over the object. Quickly press and release the left mouse button. This is called *clicking*.
Start a program or open a file or folder		Position the pointer over the object. Quickly press and release the left mouse button twice. This is called *double-clicking*.
Access a shortcut menu or find more information about an object on the display.		Position the pointer over the object. Quickly press and release the right mouse button once. This is called *right-clicking*.
Move an object on the computer display.		Position the pointer over the object. Press the left mouse button and hold it down. Move (drag) the object to the appropriate part of the computer display. Release the button to drop the object where you want it. This is called *clicking and dragging*.

For more information about how to adjust the double-click speed, pointer speed, right-hand or left-hand configuration, and other mouse settings, see the "Customizing" chapter in your online *User Guide*. For instructions on how to clean the mouse, see "Cleaning the mouse" on page 59.

Using optical drives

Features

Your optical drive has the following basic components:

Loading an optical disc

▶ **To insert an optical disc:**

1. Press the eject button on the optical disc drive.

   Important
   When you place a single-sided disc in the tray, make sure that the label side is facing up. If the disc has two playable sides, place the disc so the name of the side you want to play is facing up.

2. Place the disc in the tray with the label facing up.
3. Press the eject button to close the tray.

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Identifying optical drive types

Your computer may contain one of the following drive types. Press the drive's eject button, then look on the front of the drive's disc tray for one or more of the following logos:

If your optical drive has this logo...	Your drive type is...	Use your drive for...
COMPACT disc	**CD**	Installing programs, playing audio CDs, and accessing data.
COMPACT disc ReWritable High Speed	**CD-RW**	Installing programs, playing audio CDs, accessing data, and creating CDs.

If your optical drive has this logo...	Your drive type is...	Use your drive for...
	**DVD/CD-RW**	Installing programs, playing audio CDs, accessing data, creating CDs, and playing DVDs.
	**DVD**	Installing programs, playing audio CDs, playing DVDs, and accessing data.
	**DVD+RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to CDs and DVD+R or DVD+RW discs.
	**DVD R/RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to CDs and DVD+R, DVD+RW, DVD-R, and DVD-RW discs.
	**Double layer DVD+RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to CDs and double layer DVD+R discs. Note: To use the double layer capability of the double layer recordable DVD drive, the blank DVDs you purchase must state Double Layer, Dual Layer, or DL. Using other types of blank media will result in less capacity.
	**DVD-RAM/-RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to CDs and DVD-RAM, DVD-R, or DVD-RW discs.
	**Blu-ray Disc**	Installing programs, playing audio CDs, playing DVDs, playing Blu-ray Discs, accessing data, and recording video and data to CDs, DVD-RAM, DVD-R, DVD-RW, and Blu-ray discs.

Playing discs

Playing a CD

Important
Some music CDs have copy protection software. You may not be able to play these CDs on your computer.

A standard compact disc (*CD*) can hold an entire album of digital songs and can be played on a CD player or your computer's CD drive.

Use a music program or Windows Media Player on your computer to:

- Play music CDs
- Create MP3 music files from your music CDs
- Edit music track information
- Use your music files to build a music library

For more information about playing CDs, see your online *User Guide*.

Playing a DVD

A Digital Versatile Disc (DVD) is similar to a standard CD but has greater data capacity. Because of this increased capacity, full-length movies, several albums of music, or several gigabytes of data can fit on a single disc. DVDs can be played on a DVD player or a DVD drive-equipped computer. For more information about playing DVDs, see your online *User Guide*.

Playing a Blu-ray Disc

Blu-ray Disc is a high-capacity optical disc format that can store much more data than a DVD. A dual-layer Blu-ray Disc can hold 50 GB of files, about 23 hours of standard-definition video, or about nine hours of high-definition video. Blu-ray Discs can be played on a Blu-ray-compatible player or a Blu-ray drive-equipped computer. For more information about playing Blu-ray Discs, see your online *User Guide*.

Creating discs

Recording to optical discs

You can use the disc burning program on your computer to copy tracks from a music CD to your hard drive, copy or create data discs, create music CDs, create video DVDs, and more. For more information about creating CDs and DVDs, see your online *User Guide*.

Creating audio and video files

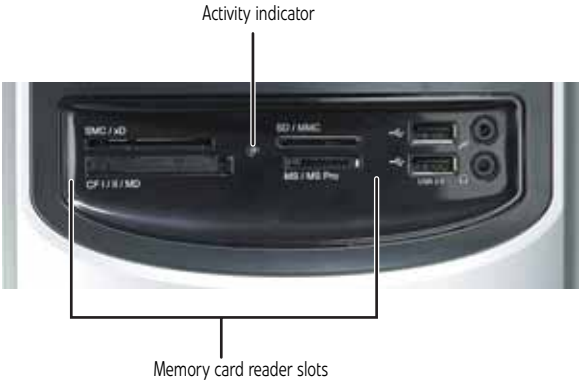
You can create audio and music files, either from scratch or from music CDs. You can also create video files from home video. For more information, see your online *User Guide*.

Copying optical discs

You can copy optical discs to make backups of your data. For more information, see your online *User Guide*.

Using the memory card reader

You can use the optional memory card reader to transfer pictures from a digital camera to your computer. You can also use the memory card reader to transfer data between your computer and a device that uses memory cards, such as a PDA, MP3 player, or cellular telephone. (Your computer's memory card reader may look different.)



Memory card types

The memory card reader supports several memory card types. To determine which types are supported by your card reader and the slots to use for each type of card, examine the face plate of the reader. Each slot is assigned a different drive letter (for example, the E: and F: drives), so data can be transferred from one memory card type to another.

Using a memory card

Caution
Before inserting a memory card into a slot, make sure that the slot is empty, or you could damage the card reader.

▶ **To insert a memory card:**

1. Insert the memory card into the appropriate memory card slot.
2. To access a file on the memory card, click (**Start**), then click **Computer**. Double-click the drive letter (for example, the **E:** drive), then double-click the file name.

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▶ **To remove a memory card:**

- Wait for the memory card reader access indicator to stop blinking, then pull the memory card out of the slot.

Caution
Do not remove the memory card or turn off the computer while the memory card reader access indicator is blinking. You could lose data. Also, remove the memory card from the reader before you turn off the computer.

Important
Do not use the **remove hardware** icon in the taskbar to remove the memory card, or you will have to restart the computer to re-enable the memory card reader.

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Adjusting the volume

You can adjust volume using your speakers' controls or the Windows volume controls. You can also adjust the volume of specific sound devices in your computer.

▶ **To adjust the overall volume using hardware controls:**

- If you are using external speakers, turn the knob on the front of the speakers.

  -OR-

  Use the mute and volume control buttons on the keyboard. For more information, see "Using the keyboard" on page 20.

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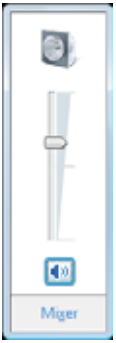
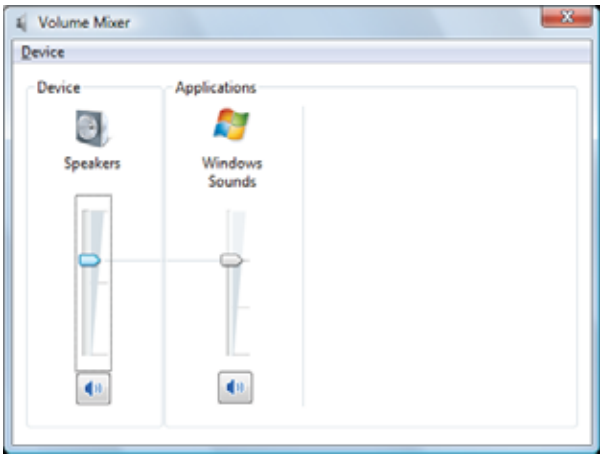
▶ **To adjust the volume from Windows:**

1. Click (**Volume**) on the taskbar. The volume control slider opens.



2. Click and drag the slider up to increase volume and down to decrease volume.
3. To mute the volume, click (**Mute**). To restore volume, click it again.

4 To adjust device volume levels, click **Mixer**. The *Volume Mixer* dialog box opens, where you can click and drag sliders for individual devices.



Tip
Adjust the Windows Sounds slider to change system sounds volume independently of general volume (such as the volume used for music and game sounds).

5 Click **X** in the top-right corner of the window to close it.

Help
For more information about adjusting the volume, click **Start**, then click **Help and Support**. Type **adjusting volume** in the **Search Help** box, then press ENTER.

■

Configuring the audio jacks

If the back of your computer has five audio jacks, they are universal jacks. This means that they can be used for more than one purpose. For example, the blue jack on the computer can be a stereo in jack or a stereo out jack. To use the audio jacks for something other than the default audio device, you need to configure the audio jacks.

▶ **To configure the audio jacks:**

Shortcut
Start ⇨ Control Panel ⇨ Hardware and Sound ⇨ Advanced

1 Connect your audio device(s) to the computer audio jack(s).

2 Click (**Start**), then click **Control Panel**. The *Control Panel* window opens.

3 Click **Hardware and Sound**, **Sound**, the **Playback** tab, then click **Configure**.

-OR-

If your computer has the Realtek Sound Effect Manager installed, double-click the Sound Effect Manager icon on the taskbar. The *Realtek* dialog box opens.

4 Follow the on-screen instructions to configure the audio jacks for your speaker setup.

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Installing a printer, scanner, or other device

Important
Before you install a printer, scanner, or other peripheral device, see the device documentation and installation instructions.

Your computer has one or more of the following ports: IEEE 1394 (also known as Firewire®), Universal Serial Bus (USB), serial, and parallel. You use these ports to connect peripheral devices such as printers, scanners, and digital cameras to your computer. For more information about port locations, see "Checking Out Your Computer" on page 5.

IEEE 1394 and USB ports support *plug-and-play* and *hot-swapping*, which means that your computer will usually recognize such a device whenever you plug it into the appropriate port. When you use an IEEE 1394 or USB device for the first time, your computer will prompt you to install any software the device needs. After doing this, you can disconnect and reconnect the device at any time.

Help
For more information about installing peripheral devices, click **Start**, then click **Help and Support**. Type **installing devices** in the **Search Help** box, then press ENTER.

Parallel and serial port devices are not plug-and-play. See the device documentation for detailed information and installation instructions.

Chapter 4

Upgrading Your Computer

- Preventing static electricity discharge
- Opening the case
- Closing the case
- Replacing the color panel
- Installing memory
- Replacing the system battery
- Adding or replacing an optical disc drive
- Replacing the media panel
- Adding or replacing a hard drive
- Replacing the heat sink and processor
- Adding or replacing an expansion card
- Replacing the system board

Preventing static electricity discharge

Warning
To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem and network cables before opening the case.
To prevent risk of electric shock, do not insert any object into the vent holes of the power supply.

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Before opening the computer case, follow these guidelines:

- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your computer.
- Turn off your computer.
- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and the modem and network cables.

Caution
ESD can permanently damage electrostatic discharge-sensitive components in your computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold expansion cards by their edges or their metal mounting brackets. Avoid touching the edge connectors and components on the cards. Never slide expansion cards or components over any surface.

Opening the case

Your computer case provides easy access to internal components.

Removing the side panel

Warning

To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

To remove the side panel:

1. Follow the instructions in "Preventing static electricity discharge" on page 32.
2. Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
3. Press the power button for ten seconds to drain any residual power from your computer.
4. Loosen the two captive thumbscrews on the back edge of the side panel. (These screws cannot be removed.)
5. Slide the side panel toward the back of your computer, then pull the panel away from your computer.

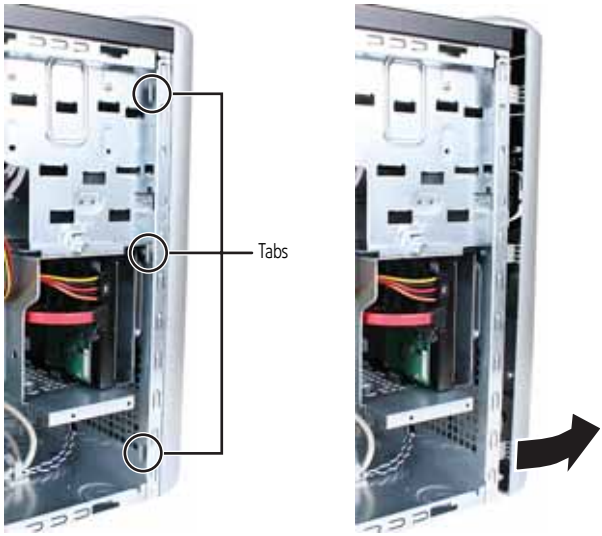
■

Removing the front bezel

To remove the front bezel:

1. Remove the side panel by following the instructions in "Removing the side panel" on page 33.

2 Press the three bezel retention tabs, then swing the left side of the bezel away from the computer and remove it.



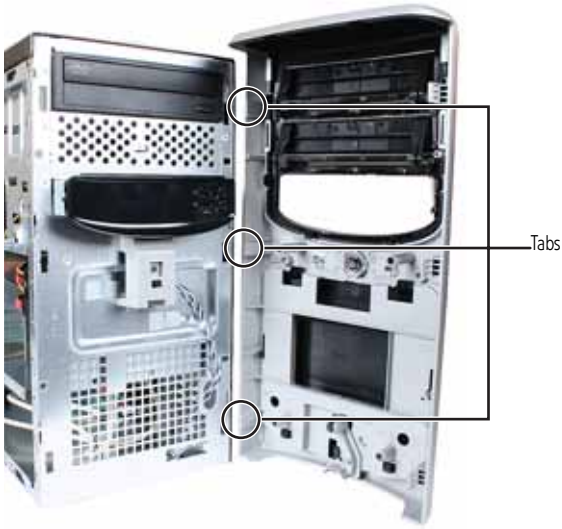
■

Closing the case

Replacing the front bezel

To replace the front bezel:

1. Slide the tabs on the right side of the bezel into the slots on the right side of the computer.



2. Swing the left side of the bezel in to insert the release tabs on the left side of the bezel into the slots on the left side of the computer.
3. Press the left side of the bezel firmly until the release tabs snap into place.

■

Replacing the side panel

To replace the side panel:

1. Make sure that all of the internal cables are arranged inside the computer so they will not be pinched when you close the computer.
2. Slide the side panel toward the front of the computer until the back of the side panel is flush with the back of the computer.
3. Tighten the two thumbscrews on the back edge of the side panel, then reconnect the cables and power cord. ■

Replacing the color panel

To replace the color panel on the front bezel:

> **Tip**
> If you have difficulty removing the color panel, it may be easier to remove the front bezel first. (This procedure shows the bezel removed.) To remove the front bezel, follow the instructions in "Removing the front bezel" on page 33.

1. Find the panel release lever under the front bezel, then slide the lever to the left.

2 Press firmly on the lower left and lower right parts of the color panel to release the panel from the front bezel. You should press the two points against the computer until you hear or feel a click, which is the sound of the panel's internal locking tabs unlocking.

3 Swing the bottom of the panel away from the bezel and remove it. The panel should easily slide out.

4 Slide the tabs of the new color panel up into the slots on the front bezel.

5 Press firmly on the lower left and lower right parts of the color panel to engage the panel's internal locking tabs. You should press the two points against the computer until you hear or feel a click, which is the sound of the panel's internal locking tabs locking the panel partially into place.

6 While pressing the bottom center of the color panel against the front bezel, slide the panel release lever back to the right. The color panel is now fully locked into place. ■

Installing memory

When you upgrade the computer memory, make sure that you install the correct type of memory module for your computer. Your computer uses DIMM memory.

▶ **To install or replace DIMM memory:**

1 Remove the side panel by following the instructions in "Removing the side panel" on page 33.

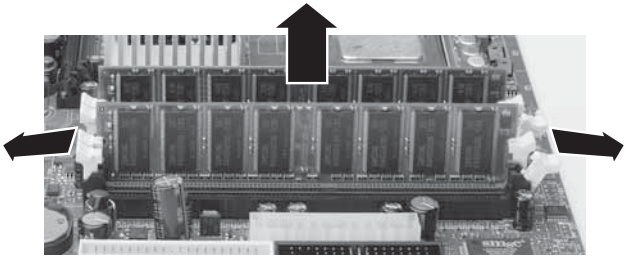
2 For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.

3 Find the memory module banks on your system board.

4 If you are removing a DIMM from the memory module bank, gently pull the plastic tabs away from the sides of the memory module and remove it.

- OR -

If you are adding a DIMM to an empty memory module bank, gently pull the plastic tabs away from the sides of the memory module bank.



5 Align the notches on the new DIMM with the notches on the memory module bank and press the module firmly into the bank. The tabs on the sides of the memory module should secure the memory module automatically. When the module is secure, you hear a click.

6 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

7 Return your computer to its upright position.

8 Reconnect the cables and the power cord.

9 Turn on your computer. Windows starts and the Windows desktop appears.

10 Click (**Start**), right-click **Computer**, then click **Properties**. The amount of memory in your computer is displayed.

■

Adding or replacing an optical disc drive

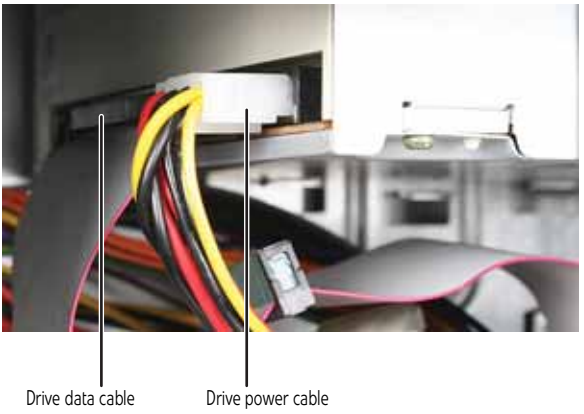
Tools
You need a Phillips screwdriver to add or replace an optical drive.

To add replace an optical drive:

1. Remove the side panel by following the instructions in "Removing the side panel" on page 33.
2. Remove the front bezel by following the instructions in "Removing the front bezel" on page 33.

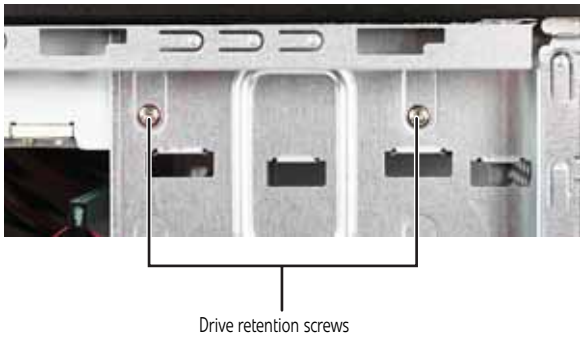
Important
The color and shape of your replacement drive's front cover may vary from your original drive.

3. If you are installing a new drive (not replacing an old one), remove the two drive retention screws in the drive bay, then go to 8. For the location of the screws, see the photo in 6.
4. If you are replacing an existing drive, disconnect the cables from the drive, noting their locations and orientation. You will reconnect the cables after you install the new drive.



5. Note any jumper settings on the old drive (if any) and set the jumper on the new drive to be the same.

6 Remove the two drive retention screws.



7 Slide the drive forward and out of the drive bay.

8 Slide the new drive into the drive bay, line up the screw holes on the drive bay with the screw holes on the drive, then replace the two drive retention screws.

9 Reconnect the drive cables using your notes from 4, or according to the manufacturer's instructions.

10 Replace the front bezel by following the instructions in "Replacing the front bezel" on page 35.

11 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

■

Replacing the media panel

The media panel on the front of your computer can contain various features, including headphone and microphone jacks, USB ports, and memory card reader slots. The features included on your computer's media panel may vary from that shown.

Tools
You need a Phillips screwdriver to replace the media panel.

Important
The appearance and features of the media panel on your computer may vary from that shown.

To replace the media panel:

1. Remove the side panel by following the instructions in "Removing the side panel" on page 33.
2. Remove the front bezel by following the instructions in "Removing the front bezel" on page 33.
3. Pull the media panel bezel's retention tab out.

4 While holding the retention tab out, rotate the bezel upward and away from the computer.

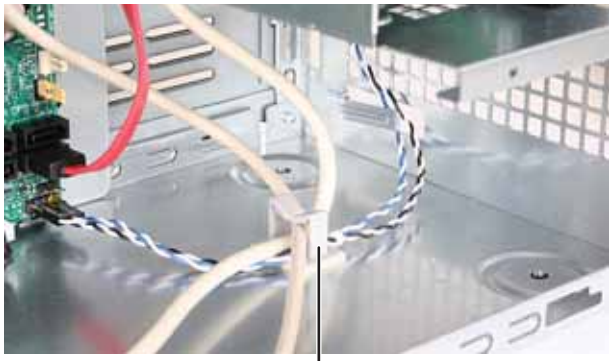
5 On the left side of the case, remove the screw that secures the media panel to the computer.

6 Take note of where the media panel's cables are connected to the system board, then disconnect the cables from the system board.

Important

If the media panel on your computer has only the audio jacks (not a media card reader), then you only have to remove the audio cable.

7 Remove the cables from the cable clip on the bottom of the case.



8 Remove the media panel from your computer.

9 Guide the cables of the new media panel through the hole in the front of the case, then slide the new media panel into place.

10 Secure the media panel with the screw you removed previously, then snap the panel's bezel into place.

11 Plug the cables into the system board, then secure them under the cable clip on the bottom of the case.

12 Reinstall the front bezel by following the instructions in "Replacing the front bezel" on page 35.

13 Reinstall the computer case's side panel by following the instructions in "Replacing the side panel" on page 36.

■

Adding or replacing a hard drive

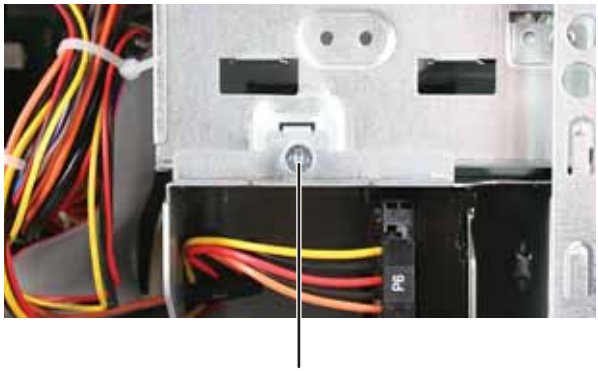
Important
The number and type of hard drives in your computer may vary from that shown.

To add or replace a hard drive:

Tools
You need a Phillips screwdriver to add or replace a hard drive.

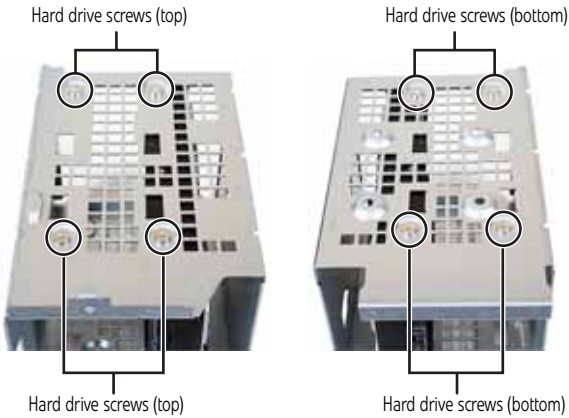
1. Remove the side panel by following the instructions in "Removing the side panel" on page 33.
2. Disconnect and label all hard drive cables, noting their locations and orientation. (You will reconnect the cables after you install the new drive.)

3 Loosen the captive thumbscrew that secures the hard drive cage to the computer. (This screw cannot be removed.)



4 Remove the hard drive cage from the computer.

5 If you are replacing a drive, remove the screws that secure the hard drive to the hard drive cage, then slide the old hard drive out of the cage.



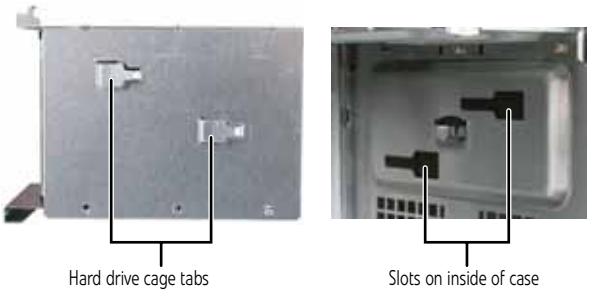
6 If you are replacing a drive, note any jumper settings on the old drive and set the jumper on the new drive to be the same.

- OR -

If you are adding a new drive, set the jumper as instructed by the drive's user guide.

7 Slide the new hard drive into the cage, then secure it to the cage using either the four screws you removed previously or screws provided with your new drive.

8 Line up the tabs on the right side of the cage with the slots on the inside of the case, then slide the cage into the case.



9 Tighten the cage thumbscrew, then plug the hard drive cage fan cable back into the system board.

10 Connect the drive cables. If you are replacing a drive, use your notes from 2.

11 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

12 Reconnect all external cables and the power cord.

13 Turn on your computer.

14 If you are using the new hard drive as your primary drive, install Windows using the operating system DVD that came with your computer. For more information on restoring your system, see "Recovering your system" on page 90.

■

Replacing the heat sink and processor

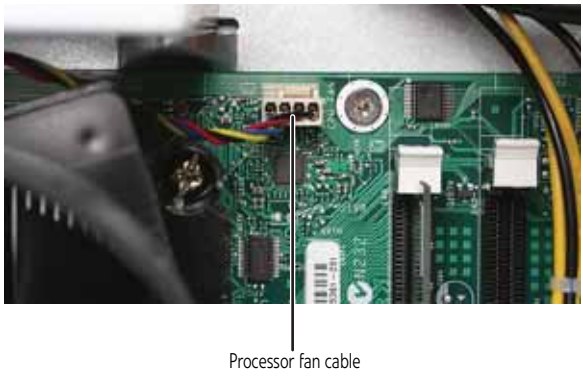
Tools
You need a Phillips screwdriver to replace the heat sink.

▶ **To replace the heat sink and processor:**

1 Remove the side panel by following the instructions in "Removing the side panel" on page 33.

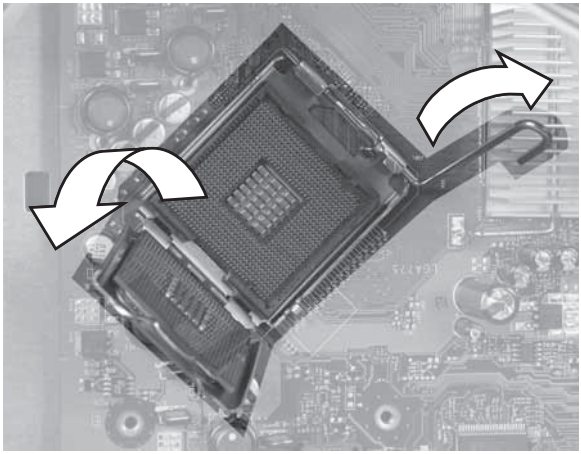
2 For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.

3 Unplug the heat sink fan cable from the system board.



4 Loosen the four captive screws that secure the heat sink and fan assembly to the system board, then remove the assembly and place it on a stable surface with the flat surface of the heat sink (the side with the thermal grease) up. (The four screws cannot be completely removed.)

5 Push the processor release lever down, lift it completely up, then lift the processor retention bracket.



6 Remove the processor from the system board.

7 Install the new processor onto the system board. Make sure that Pin 1 on the processor (indicated by the silk-screened arrow on the corner of the processor) aligns with Pin 1 on the processor socket (indicated by the absence of a pin hole in the processor socket), then return the retention bracket and lever to their locked position.

8 If this is a new heat sink, remove the strip on the heat sink that covers the gray thermal grease. If you are re-using a heat sink, use rubbing (isopropyl) alcohol to remove the old thermal grease, then re-apply a small bead of thermal grease (about the size of a pea) to the surface that contacts the processor.

9 Place the heat sink and fan assembly on the processor, then tighten the screws that secure it to the system board.

10 Connect the heat sink fan cable to the system board.

11 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

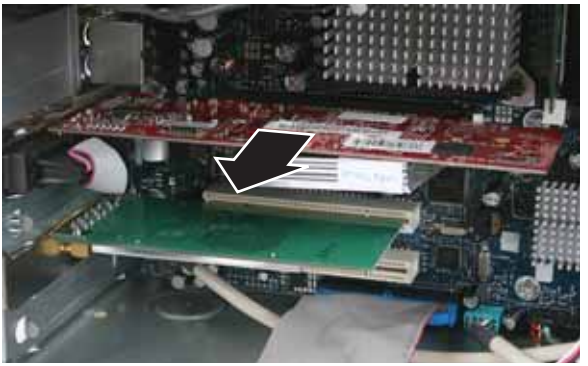
■

Adding or replacing an expansion card

To add or replace an expansion card:

1. Remove the side panel by following the instructions in "Removing the side panel" on page 33.
2. If you are replacing an expansion card, disconnect any cables that are attached to the card, noting their locations and orientation. (You may need to reconnect the cables after you install the new card.)
3. Open the card retention lever.

4. If you are replacing an expansion card, remove the old card. You can slightly seesaw the card end-to-end to loosen the card, but do not bend the card sideways.



Caution

Do not touch the contacts on the bottom part of the expansion card. Touching the contacts can cause electrostatic damage to the card.

5 Install the new card into the expansion slot. You can slightly seesaw the card end-to-end to help insert the card, but do not bend the card sideways.

6 If you have just replaced an expansion card, reconnect the expansion card cables (if any) using your notes from 2. If you have added a new expansion card, connect its cables according to its user guide.

7 Press the card retention lever back into place.

8 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

■

Replacing the system battery

Warning

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries following the manufacturer's instructions.

If the computer clock does not keep time or the settings in the BIOS Setup utility are not saved when you turn off your computer, replace the system battery. Use a battery of the same size and voltage as the original battery that was in your computer.

▶ **To replace the battery:**

1 Restart your computer.

2 During the restart, press and hold the F1 key. The main menu of the BIOS Setup utility opens.

3 Write down all values in the menus and submenus, then exit from the utility.

Caution

Any custom BIOS settings you have made will be lost when you remove the system battery. All settings will return to their factory defaults.

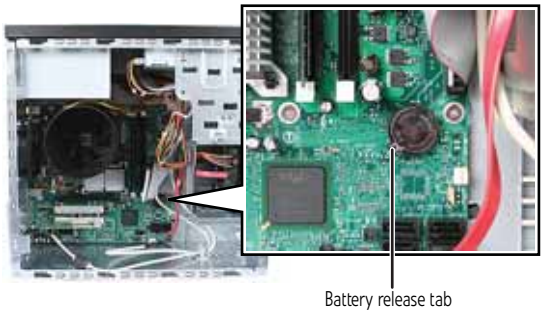
4 Shut down your computer.

5 Remove the side panel by following the instructions in "Removing the side panel" on page 33.

6 For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.

7 Locate the old battery on the system board and note its orientation. You will need to install the new battery the same way.

Important
Your computer's battery location may vary from the illustration below.



8 Push the battery release tab. The battery pops out of the socket.

9 Make sure that the positive (+) side of the new battery is facing up (usually the side that the battery type and model number are etched into), then press the battery into the socket until it snaps into place.

10 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

11 Reconnect all external cables and the power cord.

12 Turn on your computer.

13 While your computer starts, press and hold the F1 key. The main menu of the BIOS Setup utility opens.

14 In the BIOS Setup utility, restore any settings that you wrote down in 3.

15 Save all your settings and exit the BIOS Setup utility. ■

Replacing the system board

▶ **To replace the system board:**

1 Remove the side panel by following the instructions in "Removing the side panel" on page 33.

2 Remove all expansion cards by following the directions in "Adding or replacing an expansion card" on page 50.

3 Remove all memory modules by following the directions in "Installing memory" on page 38.

4 Disconnect all the power and data cables from the system board, noting their locations and orientation. (You will reconnect the cables after you install the new board.)

Tip
You can label each cable with tape to make it easier to re-connect them later.

5 Remove the four screws that secure the power supply to your computer, then slide it out of your computer.

6 Remove the eight system board screws.

7 Lift the system board up and out of the case.

8 Align the new system board on the screw holes in the case, then secure it into the case with the screws.

9 If your replacement system board does not include a processor remove the processor from the old system board by following the directions in "Replacing the heat sink and processor" on page 47, then install it and the heat sink into the new system board by following the directions in the same procedure.

10 Slide the power supply back into the case, then install the four screws to secure the power supply to the case.

11 Connect all power and data cables using your notes from 4.

12 Reinstall any memory modules you removed previously.

13 Reinstall any expansion cards you removed previously.

14 Replace the side panel by following the instructions in "Replacing the side panel" on page 36.

■

Chapter 5

Maintaining Your Computer

- Setting up a maintenance schedule
- Caring for your computer
- Cleaning your computer
- Updating Windows
- Using BigFix
- Managing hard drive space
- Scheduling maintenance tasks
- Moving from your old computer

Setting up a maintenance schedule

Use the following table to set up a regular maintenance schedule.

Maintenance task	Weekly	Monthly	When needed
Check for viruses	X	X	X
Run Windows Update	X		X
Manage hard drive space			X
Clean up hard drives		X	X
Scan hard drive for errors		X	X
Defragment hard drive		X	X
Back up files	X	X	X
Clean computer case and peripheral devices			X

Caring for your computer

To extend the life of your computer:

- Be careful not to bump or drop your computer, and do not put any objects on top of it. The case, although strong, is not made to support extra weight.
- When transporting your computer, we recommend that you put it in the original packaging materials.
- Keep your computer away from magnetic fields. Magnetic fields can erase data on hard drives.
- Never turn off your computer when the drive indicator is on because data on the hard drive could be lost or corrupted.
- Avoid subjecting your computer to extreme temperature changes. The case can become brittle and easy to break in cold temperatures and can melt or warp in high temperatures. Damage due to either extreme is not covered by your warranty. As a general rule, your computer is safest at temperatures that are comfortable for you.
- Keep all liquids away from your computer. When spilled onto computer components, almost any liquid can result in expensive repairs that are not covered under a standard warranty.
- Avoid dusty or dirty work environments. Dust and dirt can clog the internal mechanisms and can lead to permanent damage to the computer.
- Do not block the ventilation fan slots. If these slots are blocked, your computer may overheat, resulting in unexpected shutdown or permanent damage to the computer.
- When storing your computer for an extended period of time, unplug AC power.

Cleaning your computer

Keeping your computer clean and the vents free from dust helps keep your computer performing at its best. You may want to gather these items and put together a computer cleaning kit:

- A soft, lint-free cloth
- An aerosol can of air that has a narrow, straw-like extension
- Cotton swabs
- An optical disc drive cleaning kit

Cleaning the exterior

Warning
When you shut down your computer, the power turns off, but some electrical current still flows through it. To avoid possible injury from electrical shock, unplug the power cord, modem cable, and network cable from the wall outlets.

- Always turn off your computer and other peripheral devices before cleaning any components.
- Use a damp, lint-free cloth to clean your computer and other parts of your system. Do not use household abrasive or solvent cleaners because they can damage the finish on components.
- Your computer is cooled by air circulated through the vents on the case, so keep the vents free of dust. With your computer turned off and unplugged, brush the dust away from the vents with a damp cloth. Be careful not to drip any water into the vents.

Cleaning the keyboard

You should occasionally clean the keyboard to remove dust and lint trapped under the keys.

▶ **To clean the keyboard:**

1. Use an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.
2. If you spill liquid on the keyboard, turn off your computer and turn the keyboard upside down. Let the liquid drain, then let the keyboard dry before trying to use it again. If the keyboard does not work after it dries, you may need to replace it.

■

Cleaning the monitor

Caution

A flat-panel display is made of specially coated glass and can be scratched or damaged by abrasive or ammonia-based glass cleaners.

▶ **To clean the monitor:**

- To clean an LCD flat panel monitor, use a soft cloth and water to clean the screen. Dampen the cloth (never apply liquid directly to the screen), then wipe the screen with the cloth.
- To clean a CRT monitor, use a soft cloth and glass cleaner to clean the monitor screen. Squirt a little cleaner on the cloth (never directly on the screen), then wipe the screen with the cloth.

■

Cleaning the mouse

If the mouse pointer begins moving erratically across the computer screen or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

▶ **To clean the mouse:**

- Wipe the bottom of the mouse with a damp, lint-free cloth.

■

Cleaning optical discs

Optical discs (CDs, DVDs, and Blu-ray Discs) get dirty from frequent handling.

▶ **To clean an optical disc:**

- Wipe from the center to the edge, not around in a circle, using a product made especially for the purpose.

■

Updating Windows

Windows Update helps you keep your computer up-to-date. Use Windows Update to choose updates for your computer's operating system, software, and hardware. New content is added to the site regularly, so you can always get the most recent updates and fixes to protect your computer and keep it running smoothly. Windows Update scans your computer and provides you with a tailored selection of updates that apply only to the software and hardware on your computer.

For information on running Windows Update, see "Windows Update" in your online *User Guide*. Windows Update can also be controlled through the Windows Security Center. For more information, see "Protecting Your Computer" in your online *User Guide*.

Help

For more information about Windows Update, click **Start**, then click **Help and Support**. Type **windows update** in the **Search Help** box, then press ENTER.

Using BigFix

BigFix monitors your computer for problems and conflicts. It automatically gathers information about the latest bugs, security alerts, and updates from BigFix sites on the Internet. Whenever BigFix detects a problem, it alerts you by flashing the blue taskbar icon. To fix the problem, click on that icon to open BigFix.

▶ **To start BigFix:**

1. Click (**Start**), **All Programs**, **Accessories**, **System Tools**, then click **BigFix**.
2. To learn more about BigFix, click **Help**, then click **Tutorial**.

■

Managing hard drive space

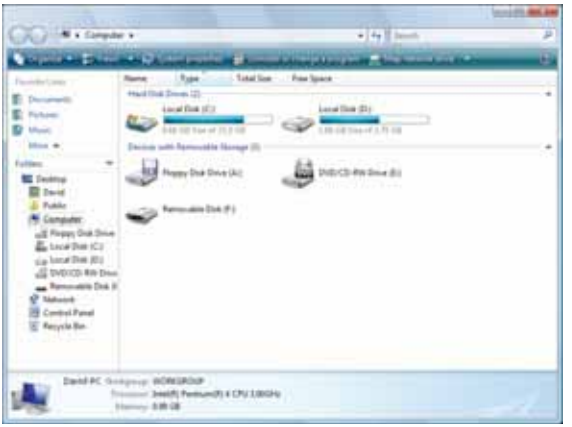
Windows provides several utilities you can use to check hard drive space, delete unnecessary files, defragment files, and back up files.

Checking hard drive space

To check hard drive space:

Shortcut
Start ⇨ Computer ⇨ right-click drive ⇨ Properties

1 Click ⊞ (**Start**) then click **Computer**. The *Computer* window opens.



2 Right-click the drive that you want to check for available file space, then click **Properties**. Drive space information appears.

■

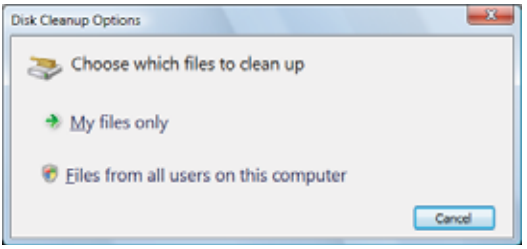
Deleting unnecessary files

Delete unnecessary files, such as temporary files and files in the Recycle Bin, to free hard drive space.

▶ **To delete unnecessary files:**

Shortcut
Start ⇨ Computer ⇨ right-click drive ⇨ Properties ⇨ Disk Cleanup

1 Click (**Start**), **All Programs**, **Accessories**, **System Tools**, then click **Disk Cleanup**. The *Disk Cleanup* dialog box opens.



2 Click one of the options:

- **My files only** cleans only the folders for the currently logged in user.
- **Files from all users on this computer** cleans all folders.

The *Disk Cleanup* dilalog box opens.

3 Click to select the types of files you want to delete, then click **OK**. The types of files you indicated are deleted.

Help
For more information about keeping the hard drive free of unnecessary files, click **Start**, then click **Help and Support**. Type **disk cleanup** in the **Search Help** box, then press ENTER.

■

Checking the hard drive for errors

The Error-checking program examines the hard drive for physical flaws and file and folder problems. This program corrects file and folder problems and marks flawed areas on the hard drive so Windows does not use them.

If you use your computer several hours every day, you probably want to run Error-checking once a week. If you use your computer less frequently, once a month may be adequate. Also use Error-checking if you encounter hard drive problems.

To check the hard drive for errors:

1. Click (**Start**) then click **Computer**. The *Computer* window opens.
2. Right-click the drive that you want to check for errors, click **Properties**, then click the **Tools** tab.

3. Click **Check Now**, then click **Start**. Your drive is checked for errors. This process may take several minutes.

Important
Error checking cannot scan a drive while the drive is being used. If you try to check your hard drive for errors, you see a prompt asking you if you want to scan the hard drive later (the next time you restart your computer). If you see this prompt, click **Schedule disc check**.

After Windows has finished checking the drive for errors, it provides a summary of the problems that it found.

4. Correct any problems that are found by following the on-screen instructions.
5. Click **OK**.

Help
For more information about checking the hard drive for errors, click **Start**, then click **Help and Support**. Type **checking for disk errors** in the **Search Help** box, then press ENTER.

■

Defragmenting the hard drive

When working with files, sometimes Windows divides the file information into pieces and stores them in different places on the hard drive. This is called *fragmentation*, and it is normal. In order for your computer to use a file, Windows must search for the pieces of the file and put them back together. This process slows the hard drive performance.

Disk Defragmenter organizes the data on the drive so each file is stored as one unit rather than as multiple pieces scattered across different areas of the drive. Defragmenting the information stored on the drive can improve hard drive performance.

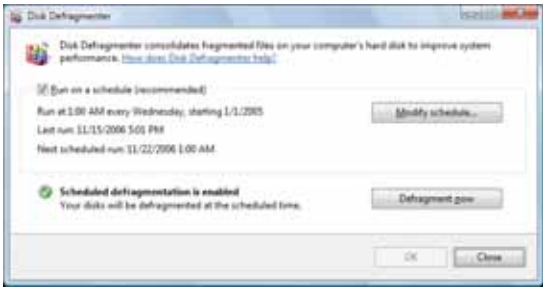
While Disk Defragmenter is running, do not use your keyboard or mouse because using them may continuously stop and restart the defragmenting process. Also, if you are connected to a network, log off before starting Disk Defragmenter. Network communication may stop the defragmentation process and cause it to start over.

Tip

Because defragmenting a drive may take hours to complete (depending on the size of the drive being defragmented), consider starting the process when you will not need the computer for several hours.

▶ **To defragment the hard drive:**

1. Disconnect your computer from the network.
2. Click (**Start**), **All Programs**, **Accessories**, **System Tools**, then click **Disk Defragmenter**. The *Disk Defragmenter* dialog box opens.



3. Click **Defragment now**. This process may take hours to complete, depending on the size of the drive being defragmented.

Help

For more information about defragmenting the hard drive, click **Start**, then click **Help and Support**. Type **defragmenting** in the **Search Help** box, then press ENTER.

■

Backing up files

Backing up files and removing them from the hard drive frees space for new files on the hard drive. It also protects you from losing important information if the hard drive fails or you accidentally delete files.

You should back up your files regularly to a writable optical disc (if you have a recordable drive). Use a backup device, such as a recordable disc drive, to do a complete hard drive backup.

▶ **To back up files:**

1. Click (**Start**) then click **Computer**. The *Computer* window opens.
2. Right-click the drive that you want to back up, click **Properties**, then click the **Tools** tab.

3. Click **Backup Now**, then click **Run a file backup now**.
4. Follow the on-screen instructions to select a backup storage location and the files and folders to back up.

Help
For more information about backing up files, click **Start**, then click **Help and Support**. Type backup in the **Search Help** box, then press ENTER.

■

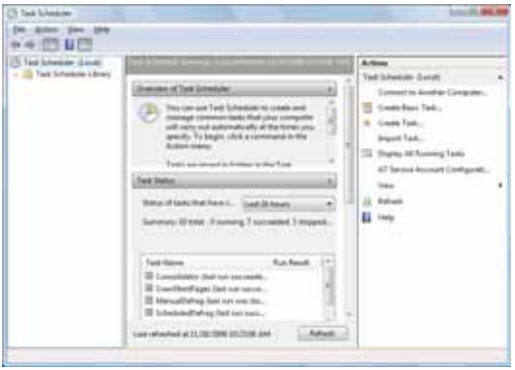
Scheduling maintenance tasks

Task Scheduler lets you schedule maintenance tasks such as running Disk Defragmenter and checking your drives for errors.

Important
Your computer must be on during scheduled tasks. If your computer is off, scheduled tasks will not run.

To start the Task Scheduler:

1. Click (**Start**), **All Programs**, **Accessories**, **System Tools**, then click **Task Scheduler**. The *Task Scheduler* dialog box opens.



2. Click **Create Basic Task** for basic tasks or click **Create Task** for more complex tasks, then follow the on-screen instructions to finish setting up and scheduling the task.

Help
For more information about scheduling tasks, click **Start**, then click **Help and Support**. Type task scheduler in the **Search Help** box, then press ENTER.

■

Moving from your old computer

Transferring files and settings automatically

You can move your files, folders, software settings, and user account settings (such as display, Internet, and e-mail settings) from your old computer to your new one using Windows Easy Transfer, providing your old computer uses Windows XP or Windows Vista.

While using Windows Easy Transfer, you will not be able to run other tasks on the computers.

Important
If your old computer does not use Windows XP or Windows Vista, you must manually move your data by using a writeable disc, flash drive, or external hard drive.

▶ **To move files and settings from your old computer:**

1. If you want to transfer program settings to your new computer, install those programs on the new computer before running Windows Easy Transfer. Windows Easy Transfer copies only the software's settings, not the software itself, to the new computer.
2. Click (**Start**), **All Programs**, **Accessories**, **System Tools**, then click **Windows Easy Transfer**. The *Windows Easy Transfer* dialog box opens.
3. Click **Next**, click **Start a new transfer**, then follow the on-screen instructions to complete the transfer.

Help
For more information about transferring files, click **Start**, then click **Help and Support**. Type **transferring files** in the **Search Help** box, then press ENTER.

■

Transferring files and settings manually

You can manually transfer your personal data files by copying them to removable media, such as a writable disc, an external hard drive, a network location, or a flash drive.

Finding your documents

Many programs save your personal data files in the *Documents* or *My Documents* folder. Look in your old computer's documents folder for personal data files.

▶ **To find files in the documents folder:**

1. In Windows Vista, click (**Start**), then click **Documents**. The *Documents* folder opens and displays many of your saved personal data files. Go to 4.

   - OR -

   In Windows XP, click **Start**, then click **My Documents**. The *My Documents* window opens and displays many of your saved personal data files. Go to 4.

   - OR -

   In Windows 98, Windows Me, or Windows 2000, double-click the **My Computer** icon on the desktop. Go to the next step.
2. Double-click the **C:** drive icon.
3. Double-click the **Documents** or **My Documents** folder. The *My Documents* window opens and displays many of your saved personal data files.

4 Copy your personal data files to removable media or to another computer on your network.

■

Finding other files

Use Windows Find or Search to locate other personal data files. For more information, see "Using Windows" in your online *User Guide*.

You can often identify different data file types by looking at the file's *extension* (the part of the file name following the last period). For example, a document file might have a .DOC extension and a spreadsheet file might have an .XLS extension.

File type	File usually ends in...
Documents	.DOC, .TXT, .RTF, .HTM, .HTML, .DOT
Spreadsheets	.XLS, .XLT, .TXT
Pictures	.JPG, .BMP, .GIF, .PDF, .PCT, .TIF, .PNG, .EPS
Movies	.MPEG, .MPG, .AVI, .GIF, .MOV
Sound and music	.WAV, .CDA, .MP3, .MID, .MIDI, .WMA

▶ **To find files using Find or Search:**

1 In Windows Vista, click ⊞ (**Start**), then click **Search**. The *Search Results* window opens.

- OR -

In Windows XP, click **Start**, then click **Search**. The *Search Results* window opens.

- OR -

In Windows 98, Windows Me, or Windows 2000, click **Start**, **Find** or **Search**, then click **For Files or Folders**. The *Search Results* window opens.

2 Type the filename you want to search for, then press ENTER. The search results are displayed.

3 To learn about more search options, click **Help.**

■

Chapter 6

Troubleshooting

Safety guidelines

While troubleshooting your computer, follow these safety guidelines:

Warning
To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

Warning
Never open your computer case while your computer is turned on and while the modem cable, network cable, and power cord are connected.

Warning
Make sure that you are correctly grounded before accessing internal components. For more information about preventing damage from static electricity, see "Preventing static electricity discharge" on page 34.

Try these steps first

If you have problems with your computer, try these things first:

Warning
To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

- Check all cable connections, including power.
- If an error message appears on the screen, write down the exact message. The message may help Customer Care in diagnosing and fixing the problem.
- If you added or removed peripheral devices, review the installation procedures you performed and make sure that you followed each instruction.
- If an error occurs in a program, see the program's printed documentation or the online help.

Help
For more information about troubleshooting, click **Start**, then click **Help and Support**. Type **troubleshooting** in the **Search Help** box, then press **ENTER**.

Error messages

Error message	Action
"Insufficient disk space"	See "You get an "Insufficient disk space" error message" on page 83.
"Data error"	See "You get a "Data error" message" on page 84.
"General failure reading drive C"	See "The hard drive cannot be accessed, or you see a "General failure reading drive C" error message" on page 84.
"Operating system not found"	See "You get an "Operating system not found" error message" on page 84.
"Unable to locate host"	See "You see an "Unable to locate host" message and are unable to browse the Internet" on page 74.
"Download Error"	See "You get a "Download Error" message when Media Center tries to update the Program Guide" on page 88.
"Memory error"	See "You see a "Memory error" message" on page 85.
"Not enough memory"	See "You see a "Not enough memory" error message" on page 86.

Internet and networking

Internet

If you do not find a solution to your problem in this section, the issue may be networking related. See "Networking" on page 78 for more information.

You cannot connect to the Internet

- If you are using a cable or DSL modem, make sure that the modem cable is securely plugged into the Ethernet network jack. See more troubleshooting at "Modem (cable or DSL)" on page 75.

  - OR -

  If you are using a dial-up modem, make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See more troubleshooting at "Modem (dial-up)" on page 76.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. For help, contact your ISP technical support.
- Your ISP may be having connection problems. Contact your ISP technical support to determine whether the Internet outage is widespread (a problem they are trying to solve).

Help
For more information about troubleshooting Internet connections, click **Start**, then click **Help and Support**. Type **troubleshooting connections** in the **Search Help** box, then press **ENTER**.

You see an "Unable to locate host" message and are unable to browse the Internet

- You may have typed the URL (Web address) incorrectly. Check the URL, then enter it again, or try a different URL.
- Your Web browser may be experiencing problems. Close your Web browser, then restart it. If that does not allow you to connect, restart your computer.
- The problem may be with your network, not the Internet itself. Check your network cables and network devices (such as switches, routers, and hubs).
- Your ISP may be having connection problems. Contact your ISP technical support to determine whether the Internet outage is widespread (a problem they are trying to solve).

People are sending you e-mails, but you have not received them

- Click the **Receive** or **Send and Receive** button in your e-mail program. This checks your mail server for incoming e-mail.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP for technical support.

E-mails you send are returned as undeliverable

- Check the spelling of the e-mail address you are sending e-mail to. A valid e-mail address consists of a user name, the @ symbol, and the Internet *domain name* of the Internet service provider (ISP) or company that "hosts" that user. E-mail addresses never contain spaces and are not case-sensitive.
- If possible, contact the intended recipient by using another method, then ask them to verify their e-mail address.

Modem (cable or DSL)

My computer cannot connect to the Internet.

- Make sure that your modem is connected to the network jack.
- See the documentation that came with your modem for additional troubleshooting information.
- Contact your modem manufacturer for technical support.

Modem (dial-up)

See also "Internet and networking" on page 74.

Your modem does not dial or does not connect

- Make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack.
- Make sure that your computer is connected to the telephone line and the telephone line has a dial tone.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- Make sure that call waiting is disabled before using the modem. Contact your telephone service provider to get the correct code to temporarily disable the service.
- Make sure that the modem dialing properties are set correctly.

To check the dialing properties:

1. Click (**Start**), type modem, then press **ENTER**.
2. If the *Location Information* dialog box opens, enter the information for your area, then click **OK**.
3. Click the **Dialing Rules** tab, click the location from which you are dialing, then click **Edit**.
4. Make sure that all settings are correct.

■

Help
For more information about dialing properties, click **Start**, then click **Help and Support**. Type dialing in the **Search Help** box, then press **ENTER**.

- Check for line noise (scratchy, crackling, or popping sounds), which is a common problem that can cause the modem to connect at a slower rate, interrupt downloads, or even disconnect. You can also call your telephone service and have the telephone line checked for noise or low line levels.
- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone service.

You cannot connect to the Internet

- The ISP may be having technical difficulties. Contact your ISP for technical support.
- Review the troubleshooting information under "Internet and networking" on page 74.

Your 56K modem does not connect at 56K

Current FCC regulations restrict actual data transfer rates over public telephone lines to 53K. Other factors, such as line noise, telephone service provider equipment, or ISP limitations, may lower the speed even further.

The modem is not recognized by your computer

- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Restart your computer.
- Run Windows modem diagnostics.

To run modem diagnostics:

1. Click (**Start**), type modem, then press **ENTER**.
2. Click the **Modems** tab, then click **Properties**.
3. Click the **Diagnostics** tab, then click **Query Modem**. If information about the modem appears, the modem passed diagnostics. If no modem information is available, a white screen appears with no data, or if you get an error such as *port already open* or *the modem has failed to respond*, the modem did not pass diagnostics.

■

Help
For more information about modem troubleshooting, click **Start**, then click **Help and Support**. Type modem troubleshooting in the Search Help box, then press **ENTER**.

The modem is noisy when it dials and connects

To turn down the modem volume:

1. Click (**Start**), type modem, then press **ENTER**.
2. Click the **Modems** tab, then click **Properties**.

3 Click the **Modem** tab, then adjust the **Speaker volume** control.

4 Click **OK** twice to close the dialog boxes.

■

Networking

You cannot see the other computers on your network

- If a network cable is connected to your computer, make sure that the other end is plugged into a network router, switch, hub, or other network device.
- Make sure that the other computers are turned on.
- If you are using a router, make sure that it is turned on. Most routers have lights that indicate they are working. For more information, see your router's documentation.
- If you are using a router, restart it by unplugging it from power for five seconds.
- Make sure that all computers on your network have the same workgroup name and Subnet Mask.
- If you assigned IP addresses to the computers, make sure that all computers have different IP addresses. For home networks, IP addresses should be **192.168.*N.N*** where *N* is a number you assign between **0** and **254**. The first *N* should be the same for all computers on your network, and the second *N* should be different for all computers on your network.

Your wired network is running slower than you expect

- If your network is running slower than you expect, check the speed of each component. For best results, all components should be standard Ethernet (10 Mbps), Fast Ethernet (100 Mbps), or Gigabit Ethernet (1000 Mbps). Components comprising a mixture of those speeds will result in your network running at the speed of the slowest component.
- For more troubleshooting help, see the documentation for your network components.

Help
For more information about network troubleshooting, click **Start**, then click **Help and Support**. Type **network troubleshooting** in the **Search Help** box, then press **ENTER**.

Power

Your computer will not turn on

- Make sure that the power cord is connected to an AC power source and to your computer, and that your computer is turned on. If your power cables are connected to a power strip, make sure it is turned on.
- Test the outlet by plugging in a working device, such as a lamp.
- Make sure that the power cord is free from cuts or damage, and r eplace any damaged cables.

Display

The screen resolution is not correct

- Change the screen resolution in Windows. For instructions, see your online *User Guide*.

The computer is on, but there is no picture

- Make sure that the computer is not in Standby (power-saving) mode.
- Make sure that the monitor is connected to a power outlet and to a video port on your computer, then make sure that the monitor is turned on. If the monitor is on, its power LED should be on.
- Adjust the monitor's brightness and contrast controls. For more information, see the monitor's documentation.
- Check the video cable for bent or damaged pins.
- Connect a display that you know works (such as a monitor from another computer) to your computer. If the display still works, the original monitor is faulty. If the display does **not** work, the computer's video card (if installed) is faulty.

The color is not uniform

- Make sure that the display warms up for at least 30 minutes before making a final judgment about color uniformity.

The text on the display is dim or difficult to read

- Adjust the brightness and contrast controls.
- Change the display settings. For instructions, see your online *User Guide*.
- For more information about display types, see your display and video card documentation.

Help
For more information about changing the screen resolution, click **Start**, then click **Help and Support**. Type screen resolution in the **Search Help** box, then press **ENTER**.

Printing

The printer will not turn on

- Make sure that the power cable is plugged into an AC power source.

The printer is on but will not print

- Make sure that the **Print to file** box is not checked in the *Print* dialog box.
- If the printer you want to print to is not the default printer, make sure that you have selected it in the printer setup.

To set a default printer:

1. Click (**Start**), type printer, then press **ENTER**. *Control Panel* opens and lists available printers.
2. Right-click the printer you want to be the default printer, then click **Set as Default Printer**.

■

- Reinstall the printer driver. See your printer's user guide for instructions.
- Wait until files have been printed before sending additional files to the printer.
- If you print large files or many files at one time, you may want to add additional memory to the printer. See the printer documentation for instructions on adding additional memory.
- Contact your printer manufacturer's technical support.

Help

For more information about printer troubleshooting, click **Start**, then click **Help and Support**. Type **printer troubleshooter** in the **Search Help** box, then press **ENTER**.

Optical discs

Optical discs include CDs, DVDs, and Blu-ray discs.

The computer does not recognize a disc or the disc drive

- Make sure that the disc label is facing up, and make sure that the disc is clean and free from large scratches. For information on cleaning the disc, see "Cleaning optical discs" on page 56.
- Update the device driver. For instructions, see "Checking for device problems" on page 89.
- Your computer may be experiencing some temporary memory problems. Restart your computer.

An audio disc does not produce sound

- Make sure that the Windows volume controls are turned up (and mute is turned off) and that any attached speakers are turned on and connected correctly.
- Make sure that the disc is label side up, and make sure that the disc is clean and free from large scratches. For information on cleaning the disc, see "Cleaning optical discs" on page 56.

A movie disc will not play

- Make sure that the disc is label side up, and make sure that the disc is clean and free from large scratches. For information on cleaning the disc, see "Cleaning optical discs" on page 56.

- The regional code of the movie disc may not match your drive's regional code. Play only discs with a regional code for your region. The DVD regional code for the United States and Canada is **1**, and the regional code for Mexico is **4**. The Blu-ray regional code for North and South America is **A**, although many (if not most) Blu-ray movies are region-free.
- Update the device driver. For instructions, see "Checking for device problems" on page 89.
- Your computer may be experiencing some temporary memory problems. Restart your computer.

Memory card reader

Drive letters for the memory card slots do not appear in the Computer window

- The memory card reader may have been temporarily uninstalled using the **Remove Hardware** icon in the system tray. Restart your computer, and it will recognize the card reader again.

Mouse

The mouse does not work

- Make sure that the mouse cable is plugged in correctly.
- Restart your computer.
- Try a mouse you know is working to make sure that the mouse port works.

The mouse works erratically

- Clean the mouse by wiping the bottom with a clean, damp cloth. Make sure that the optical sensor is clean and free of debris.
- You may be using the mouse on a transparent, reflective, metallic, or glossy surface. Your mouse uses optical sensors that do not work correctly on these surfaces. Use a mouse pad or a surface with a non-glossy texture, such as fabric.
- The mouse pad may have a printed or fabric pattern on it that interferes with your mouse. Use a different mouse pad.

Keyboard

The keyboard does not work

- Make sure that the keyboard cable is plugged in correctly.
- Clean the keyboard by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.
- Try a keyboard that you know works to make sure that the keyboard port works.

Liquid spilled in the keyboard

- Turn off your computer and unplug the keyboard. Wipe off the keyboard, blow the inside dry with a can of compressed air, then turn the keyboard upside down to drain any remaining liquid. Let the keyboard dry for several hours before using it again. If the keyboard does not work after it dries, you may need to replace it.

Files

You get an "Insufficient disk space" error message

- Delete unnecessary files from the hard drive using Disk Cleanup. For instructions, see "Deleting unnecessary files" on page 59.

  Help
  For more information about file management, click **Start**, then click **Help and Support**. Type **file management** in the **Search Help** box, then press **ENTER**.

- Empty the Recycle Bin by right-clicking the **Recycle Bin** icon, then clicking **Empty Recycle Bin**.

  Caution
  All deleted files will be lost when you empty the Recycle Bin.

- Save your files to another drive. If the hard drive is full, copy any files not regularly used to backup media, then delete them from the hard drive.

A file was accidentally deleted

- If a file was deleted while holding down the **SHIFT** key, or if the Recycle Bin has been emptied since the file was deleted, the file cannot be restored.

To restore deleted files:

1. Double-click the **Recycle Bin** icon.
2. Right-click the file you want to restore, then click **Restore**. The file is restored to the place where it was originally deleted from.

■

Help
For more information about restoring deleted files, click **Start**, then click **Help and Support**. Type System Restore in the **Search Help** box, then press **ENTER**.

You get a "Data error" message

- This may be the result of a defective area on the hard drive. To fix hard drive problems, run the error checking program. For instructions on fixing hard drive problems, see "Checking the hard drive for errors" on page 85.

The hard drive cannot be accessed, or you see a "General failure reading drive C" error message

- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system. See "Recovering your system" on page 90.

You get an "Operating system not found" error message

- Your computer is unable to detect the hard drive. Check cable connections. For instructions on opening your computer case, see "Opening the case" on page 35.
- A USB flash drive or a USB portable music player is connected to one of your computer's USB ports. Unplug the USB device, then restart your computer.
- Your hard drive has no operating system installed on it, or the operating system files cannot be recognized because they have become corrupted or erased. See "Recovering your system" on page 90.

You need to restore your computer to a working condition

- See "Recovering your system" on page 90.

Checking the hard drive for errors

Use Error-checking if you encounter hard drive problems. Error-checking examines the hard drive for file and folder problems, then corrects the data problems that it finds.

▶ **To check the hard drive for errors:**

1. Click (**Start**) then click **Computer**. The *Computer* window opens.
2. Right-click the drive that you want to check for errors, click **Properties**, then click the **Tools** tab.
3. Click **Check Now**, then click **Start**. Your drive is checked for errors. This process may take several minutes.

Important
Error checking cannot scan a drive while the drive is being used. If you try to check your hard drive for errors, you see a prompt asking you if you want to scan the hard drive later (the next time you restart your computer). If you see this prompt, click **Schedule disc check**.

After Windows has finished checking the drive for errors, it provides a summary of the problems that it found.

4. Correct any problems that are found by following the on-screen instructions.
5. Click **OK**.

Help
For more information about checking the hard drive for errors, click **Start**, then click **Help and Support**. Type **checking for disk errors** in the **Search Help** box, then press **ENTER**.

■

Memory

Help
For more information about troubleshooting memory errors, click **Start**, then click **Help and Support**. Type **memory error** in the **Search Help** box, then press **ENTER**.

You see a "Memory error" message

- Run the Memory Diagnostic Tool. Click (**Start**), type **Memory Diagnostic Tool**, then press **ENTER**. Click **Restart now and check for problems**. Your computer restarts and runs the memory diagnostics.

You see a "Not enough memory" error message

- Close all programs, then restart your computer.
- If you continue to receive this error message, consider adding more memory to your computer.

Audio

You are not getting sound from the speakers

- Make sure that the volume controls are turned up and not muted. For more information, see "Adjusting the volume" on page 28.
- If you are using external speakers:
  - Make sure that the speakers are turned on, and check the speaker connections. See your speakers' user guide for more troubleshooting tips.
  - Make sure that your computer's universal audio jacks are configured correctly. For more information, see "Configuring the audio jacks" on page 30.
- If you are trying to play an audio disc, see "Optical discs" on page 81.

Help
For more information about sound troubleshooting, click **Start**, then click **Help and Support**. Type **sound troubleshooter** in the **Search Help** box, then press **ENTER**.

Passwords

Your computer does not accept your password

- Windows passwords are case-sensitive. Make sure that **CAPS LOCK** is turned off, then retype the password.

Expansion cards

The computer does not recognize an expansion card

- Restart your computer.
- Make sure that you have installed the required software. For more information, see your expansion card's documentation.
- Remove the card from your computer's expansion slot, then reinstall the card.

Media Center

This section only covers problems relating to Media Center mode. Media Center mode is available only on Windows Vista Home Premium and Ultimate versions.

Help
For more information about Windows Media Center, click **Start**, then click **Help and Support**. Type Media Center in the **Search Help** box, then press **ENTER**.

The Media Center video display looks bad on your TV

Many factors can significantly affect the video quality:

- **Cable connections**—Loose cables can lower video quality. Check all cable connections.
- **Display type**—The Media Center is best viewed on computer displays. Other types of display devices, including TVs, may provide lower quality video.
- **Type of connection used**—The connection type has an affect on the video quality. Your computer has one or more video outputs. Use the highest quality output your TV and computer supports:
  - A/V cables (basic)
  - S-Video (fair, but not optimized for computer video display)
  - VGA (good)
  - DVI (better)
  - HDMI (best)
- **Quality of video cables**—Poor quality video cables can cause problems. We recommend using high-quality video cables.

- **Screen resolution**—Many TVs cannot display the high resolution that your computer's video signal uses, and may shift, scramble, or scroll the picture. For a better picture on a TV display, you may need to lower the computer's screen resolution to 800 × 600 or 640 × 480. For more information about changing the screen resolution, see your online *User Guide*.
- **Age of the TV**—Newer TVs usually have more advanced features, produce a better quality picture, and support higher screen resolutions.
- **Type of TV**
  - CRT TVs may have a slight flicker.
  - Plasma TVs may experience image burn-in after extended use.
  - LCD TVs use the same technology as your computer's flat panel display.

You want to change monitor settings to get better TV or DVD image quality

- Adjust the display device brightness, contrast, hue, and saturation. For more information, see the display's user guide.

You need to burn programs that were recorded with your computer to a DVD using Media Center

- Media Center saves recorded programs in the DVR-MS format. You can burn a DVR-MS file to a DVD with DVD recording (burning) software and with Media Center itself. For more information, see the Media Center online help.

You want to play recorded programs on other computers

- A DVR-MS file recorded to DVD can be replayed on another computer running Media Center or on any computer that has a DVD player and DVD decoder software (such as WinDVD). The non-Media Center computer must also have at least Windows XP with Service Pack (SP) 1 or 2, Windows Media Player 9 or later, and the Windows patch Q810243 Update.

You get a "Download Error" message when Media Center tries to update the Program Guide

- You must be connected to the Internet to update the Program Guide. Make sure that your computer is connected to the Internet. For information about manually updating the Program Guide, see the Media Center online help.

Checking for device problems

Faulty devices or corrupt device drivers can cause a variety of problems on your computer. Checking the condition of system devices and the status of their drivers can help pinpoint the problem.

To check for device problems:

1. Click (**Start**), type **device manager**, then press **ENTER**. *Device Manager* opens.
2. Examine the list of computer device types. A device type with problems have a yellow triangle or red octogon indicating a problem or a failed condition.
3. Click the **+** symbol to the left of the device type to expand the list of devices. The faulty device is marked with a yellow (problems) or red (failed) icon.
4. To update the device driver (a common solution to many device problems), right-click the device, click **Update Driver Software**, then click **Search automatically for updated driver software** and follow the on-screen prompts.

   - OR -

   To check for specific problems, right-click the device, then click **Properties** and examine the information within each of the tabs. Write down this information for future reference and troubleshooting. It may also be useful information to have available if you call Customer Care.

■

Recovering your system

You can solve most computer problems by following the information in "Troubleshooting" on page 71 or in the technical support pages at www.emachines.com. Problem solving may also involve reinstalling some or all of the computer's software (also called *recovering* or *restoring* your system). eMachines provides everything you need to recover your system under most conditions.

Caution

To prepare your computer for additional system recovery options, you should create a set of recovery discs as soon as possible. Recovery discs take some time to create, but for long-term reliability, the effort is worth it. For instructions, see "Creating recovery discs" on page 91.

To recover your system:

1. Create recovery discs as soon as you can.

   You can use these discs later for recovering your system from significant hardware and software problems. For instructions, see "Creating recovery discs" on page 91.

2. Perform minor fixes.

   If only one or two items of software or hardware have stopped working correctly, the problem may be solved by reinstalling the software or the device drivers. To recover software and drivers that were pre-installed at the factory, see "Recovering pre-installed software and drivers" on page 93. For instructions on reinstalling software and drivers that were not pre-installed, see that product's documentation or technical support Web site.

3. Revert to a previous system condition.

   If reinstalling software or drivers does not help, then the problem may be solved by returning your system to a previous state when everything was working correctly. For instructions, see "Returning to a previous system condition" on page 94.

4. Reset your system to its factory condition.

   If nothing else has solved the problem and you want to reset your system to factory condition, see "Returning your system to its factory condition" on page 95.

Creating recovery discs

If your computer experiences problems that are not recoverable by other methods, you may need to reinstall the Windows operating system and factory-loaded software and drivers. To reinstall using discs, you must create the set of recovery discs beforehand.

▶ **To create recovery discs:**

1. Click (**Start**), **All Programs**, **eMachines**, then click **eMachines Recovery Management**. *eMachines Recovery Management* opens.

2. To create recovery discs for the hard drive's entire original contents, including Windows Vista and all factory-loaded software and drivers, click **Create factory default disc**.

   - OR -

   To create recovery discs for only the factory-loaded software and drivers, click **Create driver and application backup disc**.

Important
We recommend that you create each type of recovery disc as soon as possible.

The *Create Backup Disc* dialog box opens.

This dialog box tells you the number of blank, recordable discs you will need to complete the recovery discs. Make sure that you have the required number of identical, blank discs ready before continuing.

3 Insert a blank disc into the drive indicated in the **Burn to** list, then click **Next**. The first disc begins recording, and you can watch its progress on the screen.

When the disc finishes recording, the drive ejects it.

4 Remove the disc from the drive and mark it with a permanent marker.

Important
Write a unique, descriptive label on each disc, such as "Windows Recovery Disc 1 of 2." or "Apps/Drivers Recovery disc."

5 If multiple discs are required, insert a new disc when prompted, then click **OK**. Continue recording discs until the process is complete.

■

Recovering pre-installed software and drivers

As a troubleshooting step, you may need to reinstall the software and device drivers that came pre-installed on your computer from the factory. You can recover using either your hard drive or the backup discs you have created.

- **New software**—If you need to recover software that did *not* come pre-installed on your computer, you need to follow that software's installation instructions.
- **New device drivers**—If you need to recover device drivers that did *not* come pre-installed on your computer, follow the instructions for updating drivers in "Checking for device problems" on page 89.

▶ **To recover your pre-installed software and drivers:**

1. Click (**Start**), **All Programs**, **eMachines**, then click **eMachines Recovery Management**. *eMachines Recovery Management* opens.

   - OR -

   If you are recovering from your driver and application recovery disc, insert it into the disc drive, then go to Step 3 after the *eMachines Application Recovery* main menu opens.

2. Click the **Restore** tab, then click **Reinstall applications/drivers**. The *eMachines Application Recovery* main menu opens.

3 Click **Contents**. A list of software and device drivers opens.

4 Click the install icon for the item you want to install, then follow the on-screen prompts to complete the installation. Repeat this step for each item you want to reinstall.

■

Returning to a previous system condition

Microsoft System Restore periodically takes "snapshots" of your system settings and saves them as *restore points*. In most cases of hard-to-resolve software problems, you can return to one of these restore points to get your system running again.

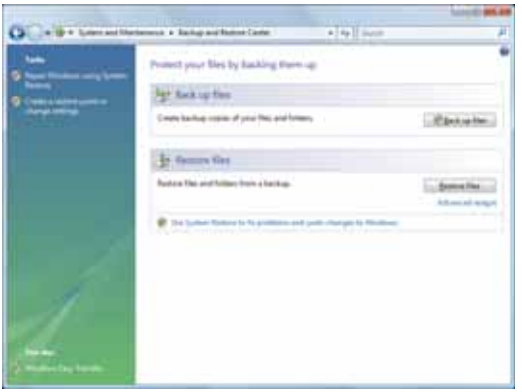
Windows automatically creates an additional restore point each day, and also each time you install software or device drivers.

Help

For more information about using Microsoft System Restore, click **Start**, then click **Help and Support**. Type **windows system restore** in the **Search Help** box, then press **ENTER**.

▶ **To return to a restore point:**

1 Click (**Start**), **Control Panel**, **System and Maintenance**, then click **Backup and Restore Center**. The *Backup and Restore Center* opens.



2 On the left side of the window, click **Repair Windows using System Restore**, then click **Next**. The *Choose a restore point* dialog box opens.

3 Click the restore point you want, click **Next**, then click **Finish**. A confirmation message box appears.

4 Click **Yes**. Your system is restored using the restore point you specified. This process may take several minutes, and may restart your computer.

■

Returning your system to its factory condition

In case your computer experiences problems that are not recoverable by other methods, you may need to reinstall everything to return your system to its factory condition. You can reinstall using either your hard drive or the recovery discs you have created.

Caution

This complete recovery deletes everything on your hard drive, then reinstalls Windows and all software and drivers that were pre-installed on your system. If you can access important files on your hard drive, back them up now.

- If you can still run Windows Vista, see "Recovering from within Windows Vista" on page 96.
- If you cannot run Windows Vista and your original hard drive is still working, see "Recovering from the hard drive during startup" on page 97.
- If you cannot run Windows Vista and your original hard drive has been completely re-formatted or you have installed a replacement hard drive, see "Recovering from your recovery discs" on page 97.

Recovering from within Windows Vista

▶ **To reinstall Windows Vista and all pre-installed software and drivers:**

1. Click (**Start**), **All Programs**, **eMachines**, then click **eMachines Recovery Management**. *eMachines Recovery Management* opens.
2. Click the **Restore** tab, then click **Restore system to factory default**. The *Confirm Restoration* dialog box opens.

3. Click **Yes**, then click **Start**. A dialog box displays information about the hard drive that the operating system will be recovered to.

Caution
Continuing the process will erase all files on your hard drive.

4. Click **OK**. The recovery process begins by restarting your computer, then continues by copying files to your hard drive. This process may take a while, but a *eMachines Recovery Management* screen shows you its progress.

   When the recovery has finished, a dialog box prompts you to restart your computer.
5. Click **OK**. Your computer restarts.
6. Follow the on-screen prompts for first-time system setup.

■

Recovering from the hard drive during startup

▶ **To reinstall Windows Vista and all pre-installed software and drivers:**

1. Turn on your computer, then press **ALT+F10** during startup. *eMachines Recovery Management* opens.
2. Click **Restore system from factory default**.

   Caution
   Continuing the process will erase all files on your hard drive.

3. Click **Next** to continue. Your hard drive's original, factory-loaded contents are recovered. This process will take several minutes.

■

Recovering from your recovery discs

▶ **To reinstall Windows Vista and all pre-installed software and drivers:**

1. Turn on your computer, insert the first system recovery disc into your optical disc drive, then restart your computer.

   Caution
   Continuing the process will erase all files on your hard drive.

2. During startup, press **F10** to open the boot menu. The boot menu is where you can select which device to start from, such as the hard drive or an optical disc.
3. Use your arrow keys to select **CDROM/DVD**, then press **ENTER**. Windows installs from the recovery disc you inserted.
4. Insert the second recovery disc when prompted, then follow the on-screen prompts to complete the recovery.

■

Technical support

Before calling Customer Care

If you have a technical problem with your computer, follow these recommendations before contacting Customer Care:

- Make sure that your computer is connected correctly to an AC power outlet that is supplying power. If you use a surge protector or power strip, make sure that it is turned on.
- If a peripheral device, such as a keyboard or mouse, does not appear to work, make sure that all cables are plugged in securely.
- If you have recently installed hardware or software, make sure that you have installed it according to the instructions provided with it. If you did not purchase the hardware or software from eMachines, see the manufacturer's documentation and technical support resources.
- If you have "how to" questions about using a program, see:
  - Its online Help
  - Its printed documentation
  - Its publisher's Web site
- See the troubleshooting section of this chapter.
- Have your customer ID, serial number, and order number available, along with a detailed description of your problem, including the exact text of any error messages, and the steps you have taken.
- Make sure that your computer is nearby at the time of your call. The technician may have you follow troubleshooting steps.

Calling Customer Care

For the contact number, see your setup poster. The label on top of your computer contains information that identifies your computer model and serial number. Customer Care will need this information if you call for assistance.

Appendix A

Legal Notices

Important safety information

Warning
Always follow these instructions to help guard against personal injury and damage to your eMachines system.

Your eMachines system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.

Setting up your system

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Some products are equipped with a three-wire power cord to make sure that the product is properly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- If you use an extension cord with this system, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.
- If your system is fitted with a TV Tuner, cable, or satellite receiver card, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and buildup of static charges.

Care during use

Warning
Do not use eMachines products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning
To reduce the risk of fire, use only No. 26 AWG or larger (for example, No. 24 AWG) UL-listed or CSA-certified telecommunication line cord for your dialup modem connection.

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to avoid eating and drinking near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
- The power cord or plug is damaged.
- Liquid has been spilled into the system.
- The system does not operate properly when the operating instructions are followed.
- The system was dropped or the cabinet is damaged.
- The system performance changes.

Replacement parts and accessories

Use only replacement parts and accessories recommended by eMachines.

Regulatory compliance statements

United States of America

Federal Communications Commission (FCC) Unintentional emitter per FCC Part 15

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Compliance accessories: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

FCC declaration of conformity

Responsible party:
Gateway, Inc.
7565 Irvine Center Drive
Irvine, CA 92618
Phone: 800-846-2000

Caution
Changes or modifications not expressly approved by Gateway could void the FCC compliance and negate your authority to operate the product.

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

California Proposition 65 Warning

Warning
This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or reproductive harm.

Telecommunications per Part 68 of the Code of Federal Regulations (CFR 47) (applicable to products fitted with USA modems)

Your modem complies with Part 68 of the Code of Federal Regulations (CFR 47) rules. On the computer or modem card is a label that contains the FCC registration number and Ringer Equivalence Number (REN) for this device. If requested, this information must be provided to the telephone company.

A telephone line cord with a modular plug is required for use with this device. The modem is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68-compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices which may be connected to the telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. The telephone company may request that you disconnect the equipment until the problem is resolved.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs. Contact the state public utility commission or public service commission for information.

When programming or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.

The United States Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. Refer to your fax communication software documentation for details on how to comply with the fax-branding requirement.

Canada

Industry Canada (IC) Unintentional emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Telecommunications per Industry Canada CS-03 (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Warning

To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Laser safety statement

Warning

Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

All eMachines systems equipped with CD and DVD drives comply with the appropriate safety standards, including IEC 825. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.

Television antenna connectors protection (for systems fitted with TV/cable TV tuner cards)

External television antenna grounding

Important
The instructions are for the person who installs cable to the system. eMachines assumes you are qualified in the servicing of computer equipment and trained in recognizing hazards in products with electric shock.

If an outside antenna or cable system is to be connected to your eMachines PC, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and static charges.

Article 810 of the National Electrical Code, ANSI/NFPSA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Cable distribution system should be grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, Grounding of Outer Conductive Shield of a Coaxial Cable.

Lightning protection

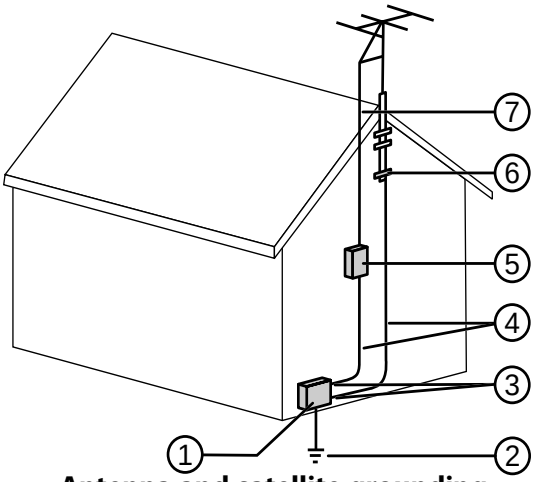
For added protection of any eMachines product during a lightning storm or when it is left unattended or unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system.

Power lines

Warning

When installing or realigning an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits. Contact with them could be fatal.

Do not locate the antenna near overhead light or power circuits, or where it could fall into such power lines or circuits.



Antenna and satellite grounding

Reference	Grounding component
1	Electric service equipment
2	Power service grounding electrode system (NEC Art 250, Part H)
3	Ground clamps
4	Grounding conductors (NEC Section 810-21)
5	Antenna discharge unit (NEC Section 810-20)
6	Ground clamp
7	Antenna lead-in wire

Environmental information

The product you have purchased contains extracted natural resources that have been used in the manufacturing process. This product may contain substances known to be hazardous to the environment or to human health.

To prevent releases of harmful substances into the environment and to maximize the use of our natural resources, eMachines provides the following information on how you can responsibly recycle or reuse most of the materials in your "end of life" product.

Waste Electrical and Electronic Equipment (commonly known as WEEE) should never be disposed of in the municipal waste stream (residential garbage collection). The "Crossed-Out Waste Bin" label affixed to this product is your reminder to dispose of your "end of life" product properly.

Substances such as glass, plastics, and certain chemical compounds are highly recoverable, recyclable, and reusable. You can do your part for the environment by following these simple steps:

- When your electrical or electronic equipment is no longer useful to you, "take it back" to your local or regional waste collection administration for recycling.
- In some cases, your "end of life" product may be "traded in" for credit towards the purchase of new eMachines equipment. Call eMachines to see if this program is available in your area.
- If you need further assistance in recycling, reusing, or trading in your "end of life" product, you may contact us at the Customer Care number listed in your product's user guide and we will be glad to help you with your effort.

Finally, we suggest that you practice other environmentally friendly actions by understanding and using the energy-saving features of this product (where applicable), recycling the inner and outer packaging (including shipping containers) this product was delivered in, and by disposing of or recycling used batteries properly.

With your help, we can reduce the amount of natural resources needed to produce electrical and electronic equipment, minimize the use of landfills for the disposal of "end of life" products, and generally improve our quality of life by ensuring that potentially hazardous substances are not released into the environment and are disposed of properly.

Notices

All Rights Reserved

The information in this manual has been carefully checked and is believed to be accurate. However, changes are made periodically. These changes are incorporated in newer publication editions. Gateway may improve and/or change products described in this publication at any time. Due to continuing system improvements, Gateway is not responsible for inaccurate information which may appear in this manual. For the latest product updates, consult the eMachines Web site at www.emachines.com. In no event will Gateway be liable for direct, indirect, special, exemplary, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages.

In the interest of continued product development, Gateway reserves the right to make improvements in this manual and the products it describes at any time, without notices or obligation.

Trademark acknowledgments

Macrovision statement

If your computer has a DVD-compatible drive and an analog TV Out port, the following paragraph applies:

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